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Item:

- Appeal Brief (17 pages)

Serial No.: 09/603,339

Docket No.: RCA 88,878

Art Unit: 2623

Examiner: Annan Q. Shang

Customer no. 24498

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Customer No.: 24498

Docket No.: RCA 88, 878

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Inventor(s) :** James Allen Strothmann  
**Serial No. :** 09/603,339  
**Filed :** 6/26/00  
**Title :** Method and apparatus for using DVD sub-picture information in a television  
**Examiner :** Annan Q. Shang  
**Art Unit :** 2623

**APPEAL BRIEF**

**MS Appeal Brief -- Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**

**Sir:**

This brief is filed within one (1) month after the mailing of a Notice of Panel Decision from Pre-Appeal Brief Review.

This brief contains items under the following headings as required by 37 CFR §41.37 and MPEP §1205.2:

I. Real Party in Interest  
II. Related Appeals and Interferences  
III. Status of Claims  
IV. Status of Amendments  
V. Summary of Claimed Subject Matter  
VI. Grounds of Rejection to Be Reviewed on Appeal  
VII. Argument  
Appendix A Claims  
Appendix B Evidence  
Appendix C Related Proceedings

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#### I. REAL PARTY IN INTEREST

The real party in interest for the appeal is:

Thompson Licensing, LLC

#### II. RELATED APPEALS AND INTERFERENCES

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

#### III. STATUS OF CLAIMS

##### A. Total Number of Claims in the Application

There are 16 claims pending in the application.

##### B. Current Status of Claims

1. Claims canceled: 4, 7, 8, 18
2. Claims withdrawn from consideration but not canceled: N/A
3. Claims pending: 1-3, 5, 6, 9-17, 19 and 20
4. Claims allowed: N/A
5. Claims rejected: 1-3, 5, 6, 9-17, 19 and 20

##### C. Claims on Appeal

The claims on appeal are Claims 1-3, 5, 6, 9-17, 19 and 20. A listing of the claims on appeal is attached as Appendix A.

#### IV. STATUS OF AMENDMENTS

A final Office Action was mailed in this case on January 13, 2006 the finality of an earlier Office Action having been withdrawn. The claims were last amended after that date in a Response filed on May 21, 2007, responsive to a non-final Office Action mailed on February 21, 2007. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed on May 12, 2008.

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## V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claims 1, 10 and 19 are currently pending. These claims, along with their dependent claims, are the subject of this appeal. The subject matter defined by Independent claims 1, 10 and 19 is described in the specification at least in figures 1-4 as well as on pages 3-6, 8, 9 and 10.

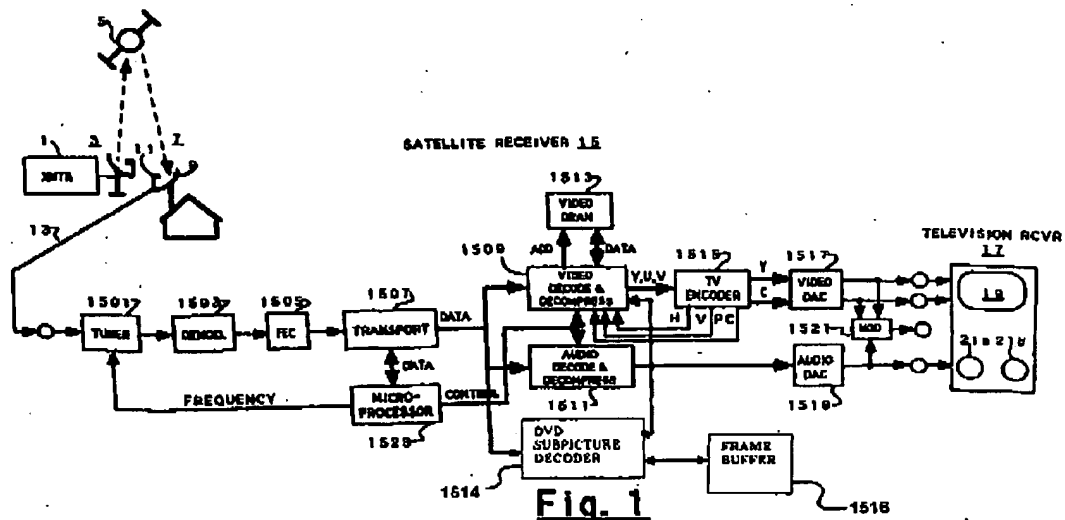
Independent claims 1 and 19 are directed to a method for providing graphics display. Independent claim 10 is directed to a video signal processing apparatus.

Referring to figure 1, as reproduced below, for explanatory purposes:

[A] digital satellite receiver system suitable for receiving and decoding a bitstream comprising MPEG and DVD subpicture bitstreams (page 3, lines 20-25)... [includes] frequency converter 11, which converts the frequencies of all the received television signals to respective lower frequencies... [s]atellite receiver 15 tunes, demodulates and otherwise processes the received television signal to produce video and audio signals in a format (NTSC, PAL or SECAM) suitable for processing by conventional television receiver 17 (page 4, line 37-page 5 line 10)... [v]ideo decoder 1509 cooperates with a random access memory (RAM) 1513 for example, in the form of a dynamic RAM (DRAM), to decode and decompress video packets in accordance with MPEG-2 to form a stream or sequence of digital words representing respective luminance (Y) and color difference (U and V) components (page 5, line 31-page 6, line 3)... [t]ransport unit 1507 ... routes... DVD subpicture data packets to DVD subpicture decoder 1514 (page 5, lines 31-34)... [a]ccording to the present invention, receiver 15 can also provide graphics images based on DVD subpicture data packets included with the MPEG bitstream (page 8, lines 25-30)... [v]ideo decoder 1509 combines the DVD subpicture graphics signal with the MPEG video signal in one of a video only, graphics only or superimpose mode to generate the output display (page 9, lines 2-5).

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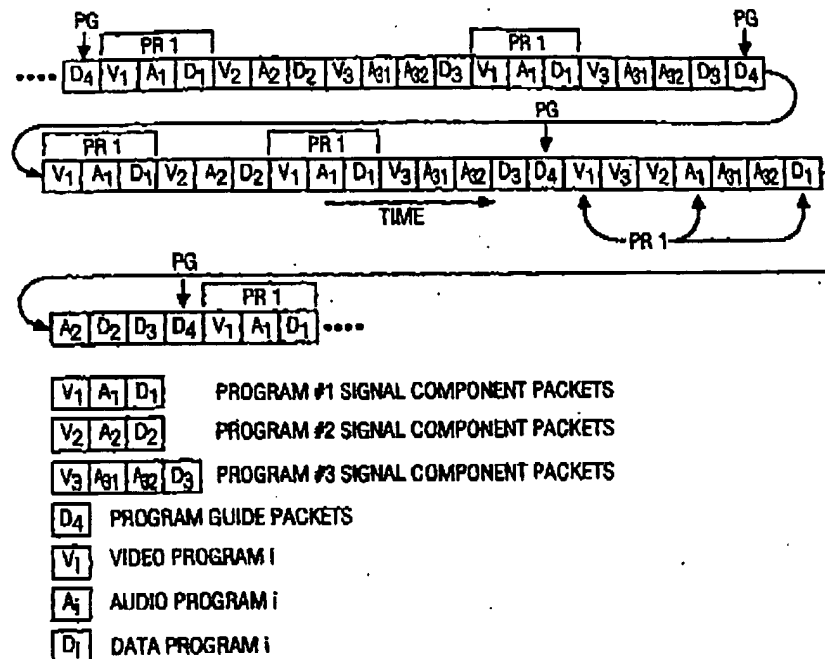


Referring to figure 2, as reproduced below, for explanatory purposes:

[T]he entire DVD subpicture bitstream can be decoded and stored in frame buffer 1516 such that the user can interactively change to one or the other decoded and stored bitstreams or any location within a bitstream for display. As such, a fully interactive program guide or other data channel information can be supplied to the user. To limit the size of frame buffer 1516, portions of the DVD subpicture bitstreams are decoded and stored in frame buffer 1516 while the remainder can be demodulated and decoded as needed. To facilitate this decoding with a reasonable decoding latency, the DVD subpicture bitstreams repeat within the MPEG stream on a regular basis. Emphasis added. Page 10, line 35-, line 7.

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**Fig. 2**

## VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-3, 5, 6, 9-11, 14-17 and 19-20, of which claims 1, 10 and 19 are independent, are unpatentable as being obvious under 35 USC §103(a) over United States patent 6,580,870 to Kanazawa et al. (*hereinafter* Kanazawa) in view of United States patent 6,678,006 to Velez et al. (*hereinafter* Velez) and in further view of United States patent 6,370,323 to Adolph et al. (*hereinafter* Adolph); and

Whether claims 12 and 13 are unpatentable as being obvious under 35 USC §103(a) over Kanazawa in view of Velez in further view of Adolf and in further view of United States patent 6,344,836 to Suzuki (*hereinafter* Suzuki).

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## VII. Argument

### A. Claim 1

Claim 1 is not anticipated or rendered obvious by the combination Kanazawa, Velez and Adolf. Claim 1 of the application recites:

A method for providing graphics display, comprising the steps of:  
receiving a bitstream including an MPEG compliant program bitstream and a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream;  
extracting and decoding the MPEG compliant program bitstream to generate a program image signal;  
extracting and decoding the DVD subpicture compliant bitstream to generate a graphic image signal; and  
combining the program image signal and the graphic image signal to provide an output display signal, wherein the DVD subpicture compliant bitstream comprises an interactive graphic having selectable regions that, when selected, causes the display of other DVD subpicture graphics associated with said subpicture compliant bitstream. Emphasis added.

Kanazawa, Velez and Adolf, whether taken alone or in combination, fail to teach or suggest the features of claim 1 including "wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream".

As discussed in Applicant's response to the non-final office action mailed on February 21, 2007, the Kanazawa reference relates to "a system for reproducing AV information, ... [such as] a reproducing system having an external access function that acquires related information connected with the reproduced stream information from resources on a computer network," (emphasis added). Column 1, lines 8-12.

The final Office Action mailed July 26, 2007 acknowledges (at page 3, line 16 thereof), that Kanazawa does not teach or suggest the claimed features of a "a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream."

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The now-pending office action relies on the Velez reference to remedy this deficiency. As is demonstrated below, however, Velez also does not disclose or suggest the features in question.

The Velez reference relates to a method and apparatus for processing DVD video data and subpicture data. According to Velez, this "is accomplished by storing a line of DVD video data and at least a partially decoded portion of DVD sub-picture data. The partially decoded DVD sub-picture data is still in an encoded format,...[o]nce stored, the DVD video data is retrieved from the memory and scaled to produce scaled video data... [which] is blended with the scaled sub-picture data to produce a video output." Abstract.

The Office Action proposes that the Velez description of run-length encoded data, in combination with the material in Kanazawa and Adolf, renders the invention of claim 1 obvious under 35 USC §103(a). In particular, the office action refers to figures 1-5 and column 2, line 48 to column 3, line 58 of the Velez reference to support this proposition (i.e., that Velez teaches or suggests the novel features of claim 1 including "receiving... a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream."

Applicant respectfully disagrees with these conclusions. Specifically, Velez does not teach or suggest "receiving... a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream," (emphasis added). Rather, Velez relates to the formation of a DVD subpicture compliant bitstream using runlength encoding of data, where analysis of repetition in the underlying data is identified and removed to compress that data, and where a DVD subpicture compliant bitstream is formed of the compressed data. Accordingly, Velez states "[a]s is known, the run-length encoded data is encoded based on patterns of compressed data... and how often they repeat. As such, run-length encoding of the DVD subpicture data is done... based on how many times... [underlying data] repeats in a given block." Column 3, lines 47-58.



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Applicant respectfully submits that compression of data into a DVD subpicture compliant bitstream based on (underlying) data repetition is completely different from "receiving... a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream." Indeed, the objectives and functions of the two processes are diametrically opposed, and thus the proposed combination of references teaches away from the present invention. The encoding described by Velez serves to compress data by identifying and removing repetition from the underlying data, whereas in the presently claimed invention "the DVD subpicture compliant bitstream is repeated," thereby adding repetition to the encoded bitstream.

The Adolf reference relates to "[a]n audio and video decoder for decoding audio, video and a sub-picture streams in a disc player.... [t]he audio and video decoder includes a... command processor [that] includes a transfer mechanism for transferring commands received at a command buffer in the memory to a command FIFO in the memory..." Abstract. Adolf is not offered by the Patent Office for, and does not teach, "receiving... a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream." Thus the proposed combination of Kanazawa and Velez with Adolf does not remedy the deficiencies identified above.

Accordingly, claim 1 is entirely distinguishable from the references now of record, whether they are taken alone or in combination. Consequently the pending rejection of claim 1 under 35 USC §103(a) over Kanazawa in view of Velez and in further view of Adolf should be withdrawn.

#### B. Claim 10

Claim 10 is not anticipated or rendered obvious by the combination Kanazawa, Velez and Adolf.

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Claim 10 recites:

A video signal processing apparatus, comprising:  
means for receiving a bitstream comprising an MPEG compliant program bitstream and a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream;  
means for parsing the received bitstream, and routing the MPEG compliant program bitstream to a MPEG decoder, and routing the DVD subpicture compliant bitstream to a DVD subpicture processor, the MPEG decoder generating a program image signal in response to the MPEG compliant program bitstream, the DVD subpicture processor generating a graphic image signal in response to the DVD subpicture compliant bitstream;  
means for combining the program image signal and the graphic image signal to provide an output image signal; and  
a display processor coupled to the combining means for displaying said output image, wherein the DVD subpicture compliant bitstream comprises an interactive graphic having selectable regions that, when selected, causes the display of other DVD subpicture graphics associated with said subpicture compliant bitstream. Emphasis added.

In light of the discussion provided above as to claim 1, the rejection of independent claim 10 should also be withdrawn. Claim 10 recites, in pertinent part, "means for receiving a bitstream comprising an MPEG compliant program bitstream and a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream." (emphasis added). It is clear on inspection that the features of claim 10 emphasized above correspond to those which have been shown in this paper to be absent from the references of record. As demonstrated above, the proposed combination of Kanazawa, Velez and Adolf, whether taken alone or in combination, do not teach or suggest a "bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream." Accordingly, for at least the reasons given above in relation to claim 1, the rejection of claim 10 under 35 USC §103(a) over Kanazawa in view of Velez and in further view of Adolf should be withdrawn.

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### C. Claim 19

Claim 19 is not anticipated or rendered obvious by the combination  
Kanazawa, Velez and Adolf. Claim 19 recites:

A method for providing graphics display comprising the steps of:  
receiving a bitstream from a remote signal source, said bitstream including an  
MPEG compliant program bitstream and a DVD subpicture compliant  
bitstream, wherein a portion of the DVD subpicture compliant bitstream is  
repeated in said received bitstream;  
extracting and decoding the MPEG compliant program bitstream to generate a  
program image signal;  
extracting and decoding the DVD subpicture compliant bitstream to generate a  
graphic image signal; and  
combining the program image signal and the graphic image signal to provide an  
output display signal, wherein the DVD subpicture compliant bitstream  
comprises an interactive graphic having selectable regions that, when  
selected, causes the display of other DVD subpicture graphics associated  
with said subpicture compliant bitstream. Emphasis added.

The rejection of independent claim 19 should also be withdrawn. Claim 19  
recites, in pertinent part, "a DVD subpicture compliant bitstream, wherein a portion of  
the DVD subpicture compliant bitstream is repeated in said received bitstream,"  
(emphasis added). It is clear, in light of the foregoing, that at least these features of claim  
19 are not taught or suggested by the proposed combination of Kanazawa with Velez and  
Adolf. Accordingly, for at least the reasons given above in relation to claim 1, the  
rejection of claim 19 under 35 USC §103(a) over Kanazawa in view of Velez and in  
further view of Adolf should be withdrawn.

### D. Claims 12 and 13

Claims 12 and 13 of the application are not rendered obvious by the combination  
of Kanazawa in further view of Velez and in further view of Adolf and in still further  
view of Suzuki.

Suzuki relates to an "information routing system [that] as one system device and a  
plurality of displays connected to the system device by a general-purpose serial interface  
[wherein] [d]rawing data is transmitted through the General-purpose serial interface to

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the displays... so that different information is displayed on each of the displays."

Abstract.

Claims 12 and 13 incorporate every feature of claim 10 (and those of claim 11) from which they depend. The Suzuki reference is not offered for, and does not teach, "a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream." Accordingly, the rejections of claims 12 and 13 under 35 USC §103(a) over Kanazawa in view of Velez and in further view of Adolf and in still further view of Suzuki should be withdrawn.

#### **E. Further Dependent Claims**

Claims 2, 3, 5, 6, 9, 11, 14-17 and 20 each depend, directly or indirectly, from independent claims 1, 10 and 19 respectively and incorporate every feature thereof. Therefore, for at least the reasons given above in relation to claims 1, 10 and 19, the rejection of claims 2, 3, 5, 6, 9, 11, 14-17 and 20 should be withdrawn.

#### **F. Conclusion**

For the reasons advanced, claims 1-3, 5, 6, 9-17, 19 and 20 are not anticipated by, or rendered obvious over, the prior art cited in the various rejections of the claims. Accordingly, a reversal of all rejections is respectfully requested.

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If the enclosed papers or fees are considered incomplete, the Patent Office is respectfully requested to contact the undersigned collect at (609) 734-6440 in Princeton, New Jersey.

Dated: *12 June 2008*

Respectfully submitted,

By *Catherine A. Ferguson*  
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**Appendix A:**

**Claims Involved in the Appeal of Application Serial No. 09/603,339**

1. A method for providing graphics display, comprising the steps of:  
receiving a bitstream including an MPEG compliant program bitstream and a  
DVD subpicture compliant bitstream, wherein a portion of the DVD  
subpicture compliant bitstream is repeated in said received bitstream;  
extracting and decoding the MPEG compliant program bitstream to generate a  
program image signal;  
extracting and decoding the DVD subpicture compliant bitstream to generate a  
graphic image signal; and  
combining the program image signal and the graphic image signal to provide an  
output display signal, wherein the DVD subpicture compliant bitstream  
comprises an interactive graphic having selectable regions that, when  
selected, causes the display of other DVD subpicture graphics associated  
with said subpicture compliant bitstream.
2. The method of claim 1, wherein the received bitstream comprises a plurality  
of DVD subpicture compliant bitstreams, and the plurality of DVD  
subpicture compliant bitstreams are extracted and decoded to generate a  
plurality of graphic image signals.
3. The method of claim 2, wherein at least one of the decoded DVD  
subpicture compliant bitstreams is buffered.
5. The method of claim 1, wherein the DVD subpicture compliant  
bitstream comprises an MPEG still image.
6. The method of claim 1, wherein the DVD subpicture compliant bitstream  
comprises an interactive program guide.
9. The method of claim 1, wherein the interactive graphic further  
comprises a selectable region that, when selected, causes the receiver to  
decode a particular MPEG compliant program bitstream.

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10. A video signal processing apparatus, comprising:

- means for receiving a bitstream comprising an MPEG compliant program bitstream and a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream;
- means for parsing the received bitstream, and routing the MPEG compliant program bitstream to a MPEG decoder, and routing the DVD subpicture compliant bitstream to a DVD subpicture processor, the MPEG decoder generating a program image signal in response to the MPEG compliant program bitstream, the DVD subpicture processor generating a graphic image signal in response to the DVD subpicture compliant bitstream;
- means for combining the program image signal and the graphic image signal to provide an output image signal; and
- a display processor coupled to the combining means for displaying said output image, wherein the DVD subpicture compliant bitstream comprises an interactive graphic having selectable regions that, when selected, causes the display of other DVD subpicture graphics associated with said subpicture compliant bitstream.
11. The apparatus of claim 10, wherein the receiving means comprises a digital interface and a demodulator coupled to the digital interface and the MPEG decoder.
12. The apparatus of claim 11, wherein the digital interface is an IEEE 1394 digital interface.
13. The apparatus of claim 11, wherein said digital interface is a USB digital interface.
14. The apparatus of claim 10, further comprising a frame buffer coupled to the DVD subpicture processor.

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15. The apparatus of claim 14, wherein the receiving means receives a bitstream comprising a plurality of DVD subpicture compliant bitstreams, and the DVD subpicture processor decodes the plurality of DVD subpicture compliant bitstreams to generate a plurality of graphic image signals.
16. The apparatus of claim 15, wherein at least one of the graphic image signals is buffered in the frame buffer.
17. The apparatus of claim 10, wherein the display processor is operable for generating an interactive program guide in response to the graphic image signal.
19. A method for providing graphics display comprising the steps of:  
receiving a bitstream from a remote signal source, said bitstream including an MPEG compliant program bitstream and a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream;  
extracting and decoding the MPEG compliant program bitstream to generate a program image signal;  
extracting and decoding the DVD subpicture compliant bitstream to generate a graphic image signal; and  
combining the program image signal and the graphic image signal to provide an output display signal, wherein the DVD subpicture compliant bitstream comprises an interactive graphic having selectable regions that, when selected, causes the display of other DVD subpicture graphics associated with said subpicture compliant bitstream.
20. A method for providing graphics display as defined in claim 19, wherein said bitstream from a remote signal source further comprises at least two MPEG compliant program bitstreams transmitted substantially concurrently by said remote signal source.



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**Appendix B: Evidence**

No evidence pursuant to §§1.130, 1.131, or 1.132 or entered by or relied upon by the Examiner is being submitted.

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**Appendix C: Related Proceedings**

There are no related proceedings.